

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims:

Claim 1 (currently amended): A method for detecting missing servo patterns on printed magnetic media, the printed magnetic media having a plurality of tracks thereon, the method comprising the steps of:

- generating a map of anticipated servo burst patterns for a magnetic medium;
- placing the magnetic medium onto a disc reading assembly;
- identifying servo bursts on the magnetic medium using the disc reading assembly;
- generating a map of identified servo bursts on the magnetic medium; and
- comparing the map of identified servo burst patterns with the map of anticipated servo bursts to identify the location of missing servo bursts on the magnetic medium.

Claim 2 (original): The method for detecting servo patterns of claim 1, wherein:

- the disc reading assembly comprises a magnetic reading head; and
- the step of identifying servo bursts on the magnetic medium comprises the steps of:
 - passing the magnetic reading head over a selected track of the magnetic medium;
 - sampling magnetic flux on the selected track of the magnetic medium using the magnetic reading head at initial servo pattern locations, the magnetic reading head providing an output signal of power proportional to the degree of magnetic flux sampled;
 - and
 - processing the sampled output signals for the initial servo pattern locations by performing a frequency down conversion coupled with band pass filtering and rms-to-DC conversion.

Claim 3 (original): The method for detecting servo patterns of claim 2, wherein the sampled output signals are processed digitally.

Claim 4 (original): The method for detecting servo patterns of claim 2, wherein the sampled output signals are in analog form.

Claim 5 (original): The method for detecting servo patterns of claim 4, wherein the step of processing the sampled output signals is performed by a spectrum analyzer operating in the zero-span mode.

Claim 6 (original): The method for detecting servo patterns of claim 2, wherein the step of identifying servo bursts on the magnetic medium further comprises the steps of:

sampling magnetic flux at additional servo pattern locations on the selected track of the magnetic medium, the magnetic reading head providing additional output signals of power proportional to the degree of magnetic flux sampled; and

processing the additional sampled output signals by performing a frequency down conversion coupled with band pass filtering and rms-to-DC conversion.

Claim 7 (original): The method for detecting servo patterns of claim 6, wherein the sampled output signals are processed digitally.

Claim 8 (original): The method for detecting servo patterns of claim 6, wherein the sampled output signals are in analog form.

Claim 9 (original): The method for detecting servo patterns of claim 8, wherein:
the step of processing the initial sampled output signals is performed by a spectrum analyzer operating in the zero-span mode; and
the step of processing the additional sampled output signals is performed by a spectrum analyzer operating in the zero-span mode.

Claim 10 (original): The method for detecting servo patterns of claim 6, wherein the step of sampling magnetic flux at additional servo pattern locations comprises the steps of:

identifying the anticipated location of additional servo bursts on the selected track;
and
sampling magnetic flux at the anticipated locations of the additional servo bursts.

Claim 11 (original): The method for detecting servo patterns of claim 10, wherein:
the step of processing the initial sampled output signals is performed by a spectrum analyzer operating in the zero-span mode; and

the step of processing the additional sampled output signals is performed by a spectrum analyzer operating in the zero-span mode.

Claim 12 (original): The method for detecting servo patterns of claim 11,
further comprising the steps of digitizing the frequency down-converted signals; and
wherein the step of generating a map of identified servo bursts on the magnetic medium comprises generating a map of the digitized signals as a function of location on the selected track.

Claim 13 (currently amended): The method for detecting servo patterns of claim 10, wherein the step of identifying servo bursts on the magnetic medium further comprises the step of:

passing the magnetic reading head over all other tracks of the magnetic medium;
sampling magnetic flux on each additional selected track of the magnetic medium using the magnetic reading head at initial servo pattern locations, the magnetic reading head providing an output signal of power proportional to the degree of magnetic flux sampled;
processing the sampled output signals by performing a frequency down conversion coupled with band pass filtering and rms-to-DC conversion;
identifying a [[first]] servo burst from the sampled output signals on each additional track;

sampling magnetic flux at additional servo pattern locations on each additional track of the magnetic medium; the magnetic reading head providing additional output signals of power proportional to the degree of magnetic flux sampled; and

processing the additional sampled output signals by performing a frequency down conversion coupled with band pass filtering and rms-to-DC conversion; and

digitizing the frequency down-converted signals from each additional track.

Claim 14 (withdrawn): The method for detecting servo patterns of claim 15, wherein the step of generating a map of identified servo bursts on the magnetic medium further comprises generating a map of the digitized signals as a function of location on the additional tracks.

Claim 15 (withdrawn): A method for detecting servo patterns on printed magnetic media, the printed magnetic media having a plurality of tracks thereon, the method comprising the steps of:

placing a printed magnetic medium into a magnetic media tester, the magnetic media tester having a spindle for rotating the magnetic medium, a magnetic reading head, and a mechanism for selectively moving the magnetic reading head;

rotating the magnetic medium;

passing the magnetic reading head over a selected track of the magnetic medium;

sampling magnetic flux on the selected track of the magnetic medium using the magnetic reading head at initial servo pattern locations, the magnetic reading head providing an output signal of power proportional to the degree of magnetic flux sampled;

processing the sampled output signals by performing a frequency down conversion coupled with band pass filtering and rms-to-DC conversion;

identifying a first servo burst from the sampled output signals.

Claim 16 (original): The method for detecting servo patterns of claim 13, further comprising the steps of:

preparing a digitized map of expected servo burst locations on the selected track; and

comparing the generated map of the digitized signals to the digitized map of expected servo burst locations on the selected track.

Claim 17 (withdrawn): The method for detecting servo patterns of claim 14, further comprising the steps of:

- passing the magnetic reading head over all other tracks of the magnetic medium;
- initially sampling magnetic flux on each additional selected track of the magnetic medium using the magnetic reading head at initial servo pattern locations, the magnetic reading head providing an output signal of power proportional to the degree of magnetic flux sampled;
- processing the sampled output signals by performing a frequency down conversion coupled with band pass filtering and rms-to-DC conversion;
- identifying a first servo burst from the sampled output signals on each additional track;
- sampling magnetic flux at additional servo pattern locations on each additional track of the magnetic medium; the magnetic reading head providing additional output signals of power proportional to the degree of magnetic flux sampled; and
- processing the additional sampled output signals by performing a frequency down conversion coupled with band pass filtering and rms-to-DC conversion;
- digitizing the frequency down-converted signals from each additional track; and
- generating a map of the digitized signals as a function of location on the additional tracks.

Claim 18 (withdrawn): The method for detecting servo patterns of claim 15, wherein the sampled output signals are processed digitally.

Claim 19 (withdrawn): The method for detecting servo patterns of claim 15, wherein the sampled output signals are in analog form.

Claim 20 (withdrawn): The method for detecting servo patterns of claim 17, wherein:

the step of processing the initial sampled output signals is performed by a spectrum analyzer operating in the zero-span mode; and

the step of processing the additional sampled output signals is performed by a spectrum analyzer operating in the zero-span mode.

Claim 21 (withdrawn): The method for detecting servo patterns of claim 18, wherein the step of sampling magnetic flux at the servo pattern locations further comprises the steps of:

identifying the anticipated location of additional servo bursts on the selected tracks;
and

sampling magnetic flux at the anticipated location of the additional servo bursts.

Claim 22 (currently amended): A method for detecting missing servo patterns on printed magnetic media, the method comprising the steps of:

placing a magnetic medium into a disc reading assembly;
taking magnetic readings on the disc at selected polar coordinate locations on the disc;

generating a signal output from the magnetic readings correlated with the selected polar coordinates;

processing the generated signals in a spectrum analyzer operating in the zero span mode to identify servo bursts from the generated signals; and

comparing identified servo bursts with the expected ~~number~~ of servo bursts at selected polar coordinates in order to detect missing servo patterns.

Claim 23 (withdrawn): The method for detecting missing servo patterns of claim 19, further comprising the step of digitizing the processed signals in a LeCroy oscilloscope.

Claim 24 (withdrawn): The method for detecting missing servo patterns of claim 21, wherein the step of reading the magnetic disc at selected polar coordinates on the disc comprises the steps of:

taking magnetic readings on the disc at a selected number of polar coordinate locations on the disc;

generating signals from the magnetic readings;

analyzing the generated signals to determine whether a threshold power level is met;

identifying those signals for which the threshold power level is met as representing a servo burst;

taking additional magnetic readings at known time increments representing the anticipate location for additional servo bursts.

Claim 25 (currently amended): The method for detecting missing servo patterns of claim 22, further comprising the step of:

generating a list of the detected servo burst signals as a function of polar coordinate on the magnetic medium;

preparing a list of expected servo burst signals as a function of polar coordinate on the magnetic medium; and

comparing the list of expected servo burst signals to the list of the detected servo burst signals as a function of polar coordinate on the magnetic medium so as to identify missing servo bursts.